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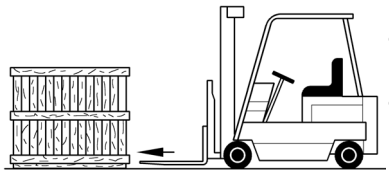
CHAP.1 INTRODUCTION

The warnings contained in this manual provide important information for safely installing, using and servicing this machine.
The operator is required to read this manual before starting any operation involving handling, installation, use, maintenance or disassembly of the machine. This manual must be kept intact and in a safe place for frequent consultation.

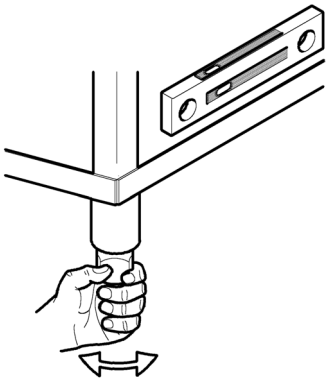
CHAP.2 INSTALLATION

2.1 HANDLING AND UNPACKING

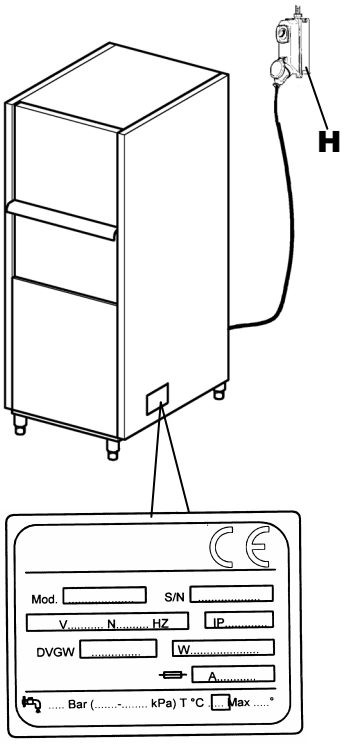


- Move the machine very carefully using a forklift.
- Make sure the equipment is not damaged, if it is immediately inform the dealer and shipper. If in doubt do not use the machine until it has been checked by professionally trained personnel.
- Move the machine to the site where it will be used and remove the packing.

Packing materials (plastic bags, polystyrene, nails) can be dangerous and must be kept out of the reach of children.



- The installation must be carried out according to the manufacturer's instructions and by professionally trained personnel.
- Only a fixed connection is suitable for this equipment.
- Position the machine and level it perfectly using the feet.
- The flooring must be suitable for the overall weight of the machine.
- Follow the indications on the installation drawing and set-up the electrical, water and drain systems in the wash area.



2.2 ELECTRICAL CONNECTION

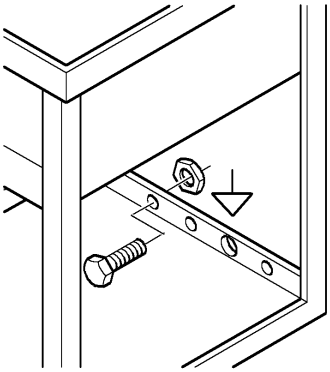
1. Connection to the power supply must be made with a main switch (H) it must be omnipolar and interrupt all contacts including neutral. There must be a distance of at least 3 mm between open contacts, and it must have a thermal magnetic safety switch or fuses which are able to withstand the maximum power indicated on the plate.

2. Make sure that the power supply corresponds to that on the technical features plate on the right side of the machine.

3. Use an effective earthing system in compliance with local laws to protect the safety of the operators and not damage the machine.

4. Do not use adapters, multiple sockets or extension cords.

5. The equipment must be included in an equipotential system, and connected using a screw marked with the symbol. ⏚ The equipotential wire must be 10 mm² .



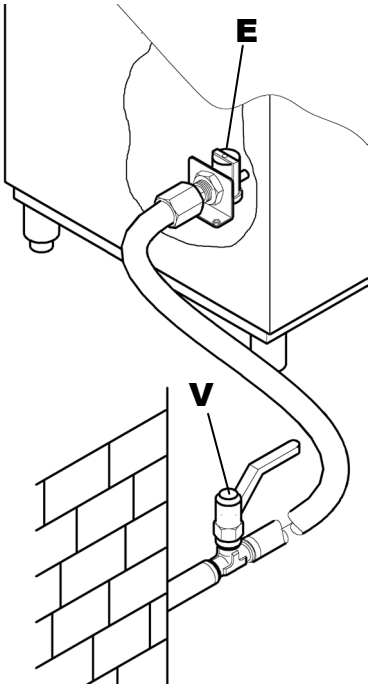
If the power supply cable (provided with the equipment) needs to be replaced use another H07RN-F type with the same dimensions.

For additional information see the wiring drawing.

2.3 WATER CONNECTION

Set-up the site according the attached plumbing drawing.

Before connecting the equipment make sure that a gate valve has been placed between the water supply and the equipment so that the water can be turned off if required or for repair work.



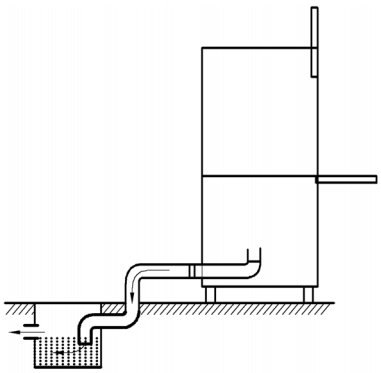
Use a hose to connect the solenoid valve (**E**) to the gate valve (**V**) and make sure that the delivery is not less than 20l/min.

Check that the temperature and water pressure correspond to what is shown on the technical specifications plate.

If the water is harder than what is listed in the chart, it is advisable to install a decalcifier upline from the solenoid valve.

If there are high concentrations of very conductive minerals in the water, it is advisable to install a demineralization system calibrated to the hardness shown in the following chart.

	Specification		From	To
Hardness	French degrees	f	5	10
	German degrees	°dH	4	7,5
	English degrees	°e	5	9,5
	Parts per million	ppm	70	140
Residual Minerals	Maximum	mg/l	300/400	



2.4 CONNECTION TO THE DRAIN LINE

The tank empties by gravity, so the drain needs to be situated below the base of the machine.

The drain pipe needs to be connected to a drain- trap built into the floor.

The drain dimensions are shown in the installation drawing.

2.5 DIFFERENT SETTINGS

Access technical settings “main menu”.

Proceed as described **(fig. 1)**

- Open door or hood.
- Keep push buttons 2 and 3 (cycle selection and start) simultaneously pressed for 5 seconds.
- Then press push button 1 (machine ON/OFF) several times to select the items in the following sequence. Parameters can be enabled or modified by pressing push buttons 2 and 3.
- To quit and store new settings, simply keep push button 1 pressed for a few seconds.

LANGUAGE: Select the desired language

THERMOSTOP: Thermostop function disable

ENERGY SAVING: Energy Saving function enable.

PREHEATING: Machine quick pre-heating enable.

DETERGENT PUMP: Detergent pump continuous enable. Detergent pump can be loaded by simply keeping push button 3 pressed. It is recommended to load detergent before suction pipe is filled up.

RINSE AID PUMP: Rinse aid pump continuous enable. Rinse aid pump can be loaded by simply keeping push button 3 pressed. It is recommended to load rinse aid before suction pipe is filled up.

DOSAGE TIME DURING WASHING: This item is used to adjust detergent pump enable time, and thus detergent concentration inside tank. Switching on time can be increased or decreased by pressing push buttons 2 and 3.

RINSE PRODUCT: This item is used to adjust rinse aid pump enable time, and thus the quantity of product used. Switching on time can be increased or decreased by pressing push buttons 2 and 3.

DRAIN PUMP: This equipment cannot be installed on this machine model.
WATER SOFTENER: This equipment cannot be installed on this machine model.

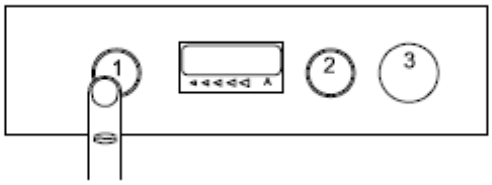
EXTERNAL SOFTENER CYCLES: External softener. If an external softener has to be installed, you have to enter a number of washing cycles after which the machine shall warn the operator through a signal that maintenance is needed.

CYCLE COUNTER: Total number of cycles made by the machine.

2.6 TEMPERATURES SETTING AND DISPENSERS ADJUSTMENT

- **Temperatures Setting:**

Keep push button 1 pressed for a few seconds, and the following message will appear " A BOILER SET TEMPERATURE". Use push buttons 2 and 3 to increase or decrease boiler temperature set.



Press push button 1 several times, and tank temperature adjustment message "B TANK SET TEMPERATURE" will appear. For models featuring flatware washing cycle, flatware cycle temperature can be adjusted by pressing push button 1 again and displaying C FLATWARE.

Washing temperature can be changed always using push buttons 2 and 3.

To quit, keep push button 1 pressed.

Note :
It is recommended to turn machine off and on again pressing line push button 1 several times.

- **Detergent Dispensers Adjustment.**

Warning: Use liquid, industrial-type detergent, and without foam.

Access technical settings "main menu" as described in section 2.5. Use push button 1 to scroll the menu until reaching "DOSAGE TIME DURING WASHING". The displayed time corresponds to detergent dispenser enabling time during programme washing phase. This time can be changed using push buttons 2 and 3. Keep push button 1 pressed until hyphens are displayed to quit. Set time adds up to operating time for starting loading.
Detergent motor pump has a flow of 3 Litres/hour.

We remind you that the quantity of detergent varies - based on the indications given on jerry can plate - from 2 to 4 gr./L for waters with hardness ranging from 5 to 10 °F (French degrees).

- **Rinse Aid Dispensers Adjustment.**

  Access technical settings “main menu” as described in section 2.5. Use push button 1 to scroll the menu until reaching RINSE AID PUMP. The displayed time corresponds to rinse aid enabling time at the end of washing programme. This time can be changed using push buttons 2 and 3. Keep push button 1 pressed until hyphens are displayed to quit. Set time adds up to operating time for starting loading.

  Detergent motor pump has a flow of 0.4 Litres/hour.

CHAP.3 SAFETY RECOMMENDATIONS

3.1 RESIDUAL RISKS AND WARNINGS

- Never open the door quickly if the cycle has not finished.
- Do not put bare hands into the wash solution.
- Never remove the machine panels if the power upline has not been turned off.
- The professionally trained personnel who install the machine and connect the electricity, will explain to the user how to operate the machine and which safety measures to use.
- The installer will provide practical demonstrations and leave written instructions which are provided with the machine.
- **This machine is only to be used for the purpose for which it was designed. Any other use is considered improper and dangerous.**
- The machine is not to be used by untrained personnel.
- Never use the machine if any of the protections (microswitches, panels or other) provided by the manufacturer are missing.
- Do not use the machine to wash objects not compatible with those indicated by the manufacturer.
- All repair work must be done by the manufacturer or an authorized service center using original spare parts.
- Failure to observe this may affect the safety of the machine.
- The power supply should be turned off when the machine is not being used.
- Do not approach magnetic objects to the machine, as it could be inadvertently started.

IT HAS TO BE WELL NOTED THAT:

- **The machine shall be perfectly grounded. Such a connection shall also be checked and tested at regular intervals.**

3.2 Normal service conditions

Ambient Temperature : 40°Cmax /4°Cmin (average 30°C)
Altitude : until 2000 metrical
Relative humidity : max 30% at 40°C / max 90% at 20°C
Transport and Storage : between 10°C and 55°C with peack until 70°C (max 24 hrs)

3.3 ERROR MESSAGES

Dos if the following messages are displayed:

ER 01 No Rinse
This type of error is displayed when the rinse cycle has not been correctly carried out. It is thus recommended to check that rinse spraying nozzles are free from any obstruction, then carry out a new washing programme. If the problem still occurs, contact an authorised service centre.

ER 02 No Drain
This type of message is displayed when the tank has not been correctly drained.
Turn the machine OFF and then ON again; then select the drain cycle and:
- Make sure that overflow is removed from tank drainage during drain cycle (applying to versions featuring the overflow device). then carry out another drain cycle or self-cleaning cycle.

If the problem still occurs, contact an authorised service centre.

ER 03 No Heating
This type of message is displayed when boiler heating has not been correctly carried out. Turn the machine OFF and ON again. Repeat the set programme. If the problem still occurs, contact an authorised service centre.

Strange Noise During Heating.
Resistance totally encrusted by lime or salts present inside highly-conductive waters. We recommend changing. Please check for machine water softener correct operation.

ER04 Tank not loaded or tank water level sensor broken.
This message is displayed when a problem during loading occurred.
It is recommended to make sure that:
- Water is present in the network.
- Overflow device is correctly enabled (applying to models having this feature).
- Water flow and pressure are suitable to the machine being used.

It is recommended to turn the machine OFF and ON again without emptying the tank. If the problem still occurs contact an authorised service centre.

ER05 ;ER E6 Tank temperature sensor broken.
This message is displayed when the sensor checking washing water temperature is broken.
Er 05: sensor open
Er 06: sensor short circuit.
It is recommended to contact an authorised service centre

ER 07; ER 08 Boiler temperature sensor broken.
This message is displayed when the sensor checking boiler water temperature is broken.
Er 07: sensor open
Er 08: sensor short circuit.
It is recommended to contact an authorised service centre

ER 09 Boiler not loaded or boiler level sensor broken.
This type of message is displayed when boiler is not correctly loaded. To prevent kitchenware incorrect washing, the machine will stop.

- Make sure that water flow and pressure are correct.
  It is recommended to contact an authorised service centre.

HIR b Rinsing temperature too high.
This type of message is displayed when boiler temperature sensor reads a too high temperature.
Boiler set temperature shall be decreased.
We remind you that safety devices can be triggered and high temperatures signalled if the machine is installed at a height equal to or higher than 2,000 metres above sea level. If this is the case, reduce all heating sets as water boiling point is lower.

HIW T Washing temperature too high.
This type of message is displayed when tank temperature sensor reads a too high temperature.
Tank set temperature shall be decreased.

SAFE Safety thermostats triggering

It is recommended to contact an authorised service centre

CHAP.4 USE OF THE MACHINE

4.1 LEGEND

Fig.1 shows:

1	**ON/OFF** BUTTON	**4**	INFORMATION **DISPLAY**
2	**PROGRAMME SELECTION** BUTTON	**5**	**TIME BAR**
3	**START** BUTTON		

4.2 COMMANDS SELECTION

1) To turn the machine ON, press **1 (fig. 1*).***
Warn.light **3** starts flashing, and the machine starts the loading cycle. Do not forget to correctly enable overflow, tank filters, and then close door.
Once loading cycle is completed, the machine will automatically start the heating cycle and, at the same time, will suck the set quantity of detergents.

2) The machine is ready for use when warn.light **3** will be green and steady on. **(fig. *2).***

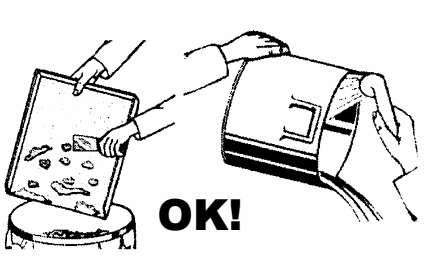
3) Select washing programme duration based on your needs and using push button **2 (fig. *3).***
2 to approx. 12 minute washing programmes and a CLS self-cleaning programme can be selected.
The selected programme will be stored for the following usage.

4) Open the door and introduce the kitchenware to be washed arranging it as described in the following section “4.3 Arranging the Kitchenware.” Then close the door, and start the selected

washing cycle pressing push button **7**. The button will light up blue for the entire duration of the cycle.

5) Once washing is finished, three audible beeps will be heard, and the **end** wording will be displayed **(fig. *5)***. Open the door and take out basket. Wait for a few seconds to allow all objects correct drying.

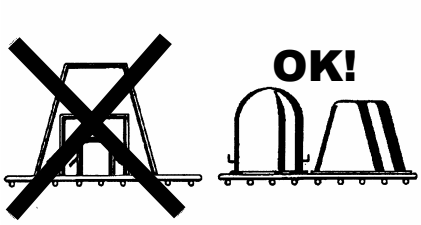
4.3 USE OF THE MACHINE



WE RECOMMEND TO PRE-CLEAN the glassware in order to minimize maintenance. The quality of final wash results will be greatly improved by first removing food particles, lemon peels, toothpicks, olive pits, etc. which could partially clog the pump filter and impair washing efficiency.

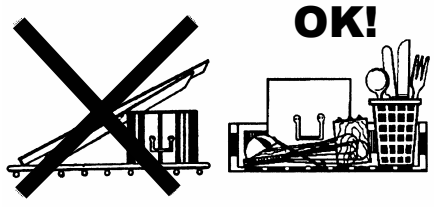
We recommend washing the glassware before food particles dry on its surface. It is good practice, when dried food waste is involved, to first soak the glassware and silverware before introducing them into the machine.

- Pour the proper amount of detergent in the wash tank according to the producer's instructions.



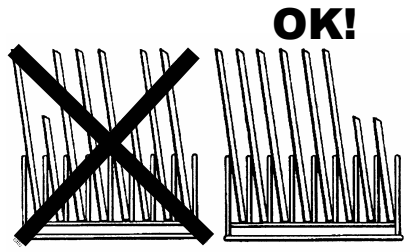
- **The detergent must be the industrial type or possibly foamless.**

- Never put your bare hands in the wash water; place the cups and the glasses upside down in the baskets. Place the dishes in the proper basket with support pins and their inner surface must be facing up.



- Place the silverware and the coffee spoons with the handles facing down.

- Never place silverware and stainless steel cutlery in the same basket. This could cause the silver to burnish and the stainless steel to corrode.

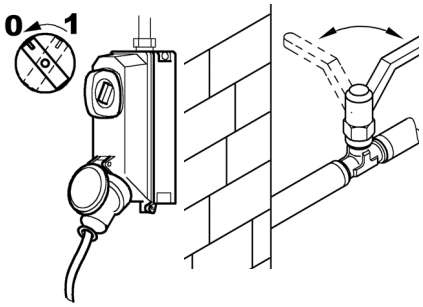


- Use the proper baskets specifically designed for the different type of glassware (dishes, glasses, cups, silverware etc.). To save on detergent and electricity only wash when the baskets are full, but do not overload them. Avoid stacking glassware.

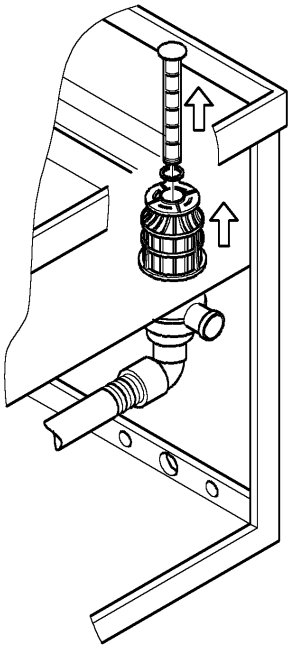
4.4 FINAL OPERATIONS

- Carry out a self-cleaning cycle.
- Press push-button **2 (fig 6)** to select **"CLS"** programme, then remove filters and overflow device, close door, and press push-button **3**.

- Once drain is over, the machine will carry out two rinse cycles, and will then be automatically switched off
- Remove tension from the machine.



- Open the door and remove the rack with clean dishes.
- Drain the water from the tank by lifting the overflow-pipe. For the model with drain pump please follow the operations described in the «Use instructions» paragraph.
- Disconnect the main switch of the equipment.



- Close the «rolling shutter valve» for the hydraulic connection.
- Remove the filters clean them under a water jet with a nylon brush.
- Pay attention not to let any dirtiness rests on the bottom of the drain pump filter inside the tank. Clean the tank with a moderate water jet. Wash outside surfaces when are cold with non-abrasive products which are especially studied for steel maintenance.

REMARK: Do not wash the equipment with direct jet or at another pressure because eventual infiltrations to the electric components may harm the regular working of the equipment or of the single safety systems, and penalty for this would be the loss of guarantee.

4.5 HALF-LOAD ENABLE, FOR TT924 ONLY

The "half-load" function can be enabled when just a few objects have to be washed. This allows saving power as well as water and detergents.

1) Load the machine with the kitchenware to be washed well arranged on the right side, as shown in ***(Fig. 7)***.

2) Open the door, and keep start push-button **3** pressed until warning light **M** ***(Fig 8)*** comes on.

3) Close door, and enable the washing cycle as described in the previous paragraph.

4) A symbol will be displayed during the washing cycle to indicate that just half of the machine is working.

4.6 TEMPERATURES DISPLAYING

Rinse temperature always appears on display 9 ***(fig. 1).*** Keep push button **4** pressed for a few seconds ***(fig. 4)*** so as to display washing temperature, and then the number of washing cycles carried out during machine entire life.

CHAP.5 MAINTENANCE

5.1 GENERAL RULES

The machine are designed to reduce maintenance requirements. It is necessary to observe the following rules to make the machine last long, and work without problems.

In any case, it is necessary to observe the following rules to make the machine stay in perfect working order:

- keep the machine clean and in good condition
- avoid making temporary or urgent repairs frequently

It is very important to observe the maintenance directions; check all the different parts of the machine periodically, so that no anomaly can occur, thus anticipating the time and equipment needed for any maintenance work.

Before cleaning turn off the power.

5.2 PERIODIC MAINTENANCE (to be done at least every 20 days)

To make operations following easier, the rack-holder frame can be removed from its seat.

- Remove the upper and lower rinse arms, by unscrewing the fastening.
- Unscrew and clean all the sprayers and put them back in their place.
- Remove the upper and lower wash-arms by unscrewing the rinse pin , clean and rinse them.

- Remove the wash pump filter, clean it and rinse it.
- Thoroughly clean the wash tank.
- Leave the appliance lid open for the whole resting period.
- Lime deposits and scale will build up on the inner surfaces of the boiler, tank and pipelines due to calcium and magnesium salts present in the water. These scales and deposits can prejudice proper apppliance operation.
- The appliance must be periodically descaled and we recommend that this must be done by an expert.
- Grease steel surfaces with vaseline oil whenever the appliance will be inactive for a long period of time.
- Have an expert drain all the water out from the boiler and the wash pump to avoid the danger of ice formation.

- **If the machine does not operate properly or in case of trouble, call a service center authorized by the manufacturer of the appliance or by his Dealer.**

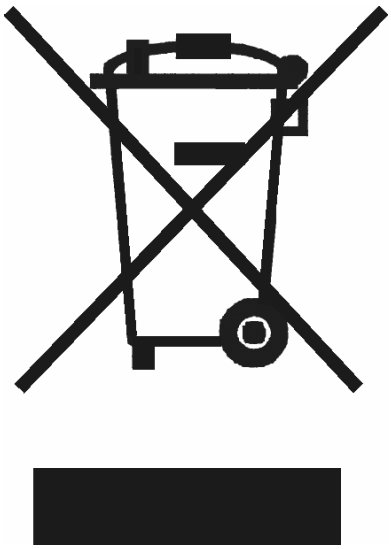
CHAP.6 RECYCLING AND DISPOSAL

6.1 DISPOSAL THE MACHINE

Our machines are not made of materials that require particular disposal procedures.

6.2 CORECT DSPOSAL OF THIS PRODUCT

(Waste Electrical & Electronic Equipment)



Thi marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncotrolled waste disposal please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Hausehold user shold contact either the retailer where they purchased this product or their local government office, for where and how they can take this item for environmentally safe recycling

Business usures should contact theis supplier and check the terms and conditions of the puchase contract. This product should not be mixed with other commercial wastes for disposal.